

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION



MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No. MO-0098418

Owner: City of New Madrid
Address: 560 Mott Road, New Madrid, MO 63869

Continuing Authority: St. Jude Industrial Park
Address: PO Box 67, New Madrid, MO 63869

Facility Name: St. Jude Industrial Park
Facility Address: PO Box 67, New Madrid, MO 63869

Legal Description: See page 2

Receiving Stream: Tributary to Portage Bayou (U)
First Classified Stream and ID: Old Channel Little River (C)(03037)
USGS Basin & Sub-watershed No.: (08020204-020007)

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

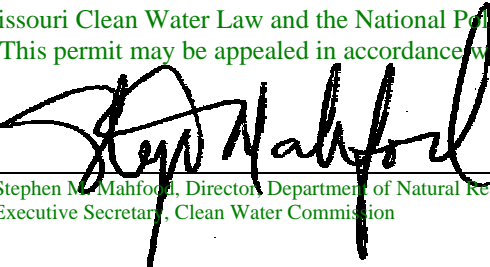
FACILITY DESCRIPTION

See page 2

This permit authorizes only wastewater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law.

April 5, 2002
Effective Date

April 4, 2007
Expiration Date
MO 780-0041 (10-93)


Stephen M. Mahford, Director, Department of Natural Resources
Executive Secretary, Clean Water Commission

Interim Director of Staff, Clean Water Commission

FACILITY DESCRIPTION (continued)

Outfall #001 - Eliminated

Outfall #002 - Industrial Park - SIC #4952/6512

Four cell lagoon/slow rate irrigation/sludge is retained in lagoon.

Design population equivalent is 8,750.

Design flow is 875,000 gallons per day.

Actual flow is 225,000 gallons per day.

Legal Description: SE $\frac{1}{4}$, SW $\frac{1}{4}$, Sec. 30, T22N, R14E, New Madrid County

Outfall #003 - Industrial Park - SIC #4952/6512

Water treatment/settling basins/lime sludge is land applied.

Design flow is 86,400 gallons per day.

Actual flow is 43,200 gallons per day.

Legal Description: NE $\frac{1}{4}$, SE $\frac{1}{4}$, Sec. 30, T22N, R14E, New Madrid County

Outfall #004 - Eliminated

Outfall #005 - Industrial Park - SIC #4952/6512

Storm water runoff/lime sludge storage.

Design flow is 610,000 gallons per day.

Actual flow will be dependent upon rainfall.

Legal Description: SE $\frac{1}{4}$, NE $\frac{1}{4}$, Sec. 30, T22N, R14E, New Madrid County

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS					PAGE NUMBER 3 of 6	
					PERMIT NUMBER MO-0098418	
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Outfall #001</u> - Eliminated						
<u>Outfall #002</u> (Note 1) Flow	MGD	*		*	once/quarter**	24 hr. estimate
Biochemical Oxygen Demand ₅ ***	mg/L		65	45	once/quarter**	grab
Total Suspended Solids***	mg/L		110	70	once/quarter**	grab
pH - Units	SU	****		****	once/quarter**	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>QUARTERLY</u> ; THE FIRST REPORT IS DUE <u>July 28, 2002</u> .						
Land Application System (Note 2)						
Lagoon Freeboard	feet	*			once/month	measured
Irrigation Period	hours	*			daily	total
Volume Irrigated	gallons	*			daily	total
Application Area	acres	*			daily	total
Application Rate	inches/ acre	1.0	3.0		daily	total
Rainfall	inches	*			daily	total
MONITORING REPORTS SHALL BE SUBMITTED <u>ANNUALLY</u> ; THE FIRST REPORT IS DUE <u>January 28, 2003</u> .						
<u>Outfall #003</u> Flow	MGD	*		*	once/quarter**	24 hr. estimate
Settleable Solids	mL/L/hr	1.5		1.0	once/quarter**	grab
pH - Units	SU	*****		*****	once/quarter**	grab
<u>Outfall #004</u> - Eliminated						
<u>Outfall #005</u> (Note 3) Flow	MGD	*		*	once/quarter**	24 hr. estimate
Settleable Solids	mL/L/hr	1.5		1.0	once/quarter**	grab
pH - Units	SU	*****		*****	once/quarter**	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>QUARTERLY</u> ; THE FIRST REPORT IS DUE <u>July 28, 2002</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
B. STANDARD CONDITIONS						
IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED <u>Parts I & III</u> STANDARD CONDITIONS DATED <u>October 1, 1980 and August 15, 1994</u> , AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.						

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

- * Monitoring requirement only.
- ** Sample once per quarter in the months of March, May, September & November.
- *** This facility is required to meet a removal efficiency of 65% or more.
- **** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.0-9.0 pH units.
- ***** pH is measured in pH units and is not to be averaged. The pH is to be maintained at or above 6.0 pH units.

Note 1 - There shall be no discharge during June through October. During the remainder of the year, discharge may occur when excess wastewater has accumulated above irrigation needs.

Note 2 - Records shall be maintained and summarized into an annual operating report which shall be submitted by January 28th of each year for the previous calendar year period. The report shall include the following:

- (a) record of maintenance and repairs performed during the year, average number of times per month the facility is checked to see if it is operating properly, and description of any unusual operating conditions encountered during the year;
- (b) the number of days the lagoon has discharged during the year, the discharge flow, the reasons discharge occurred and effluent analysis performed; and
- (c) a summary of the irrigation operations including freeboard at the start and end of the irrigation season, the number of days of irrigation for each month, the total gallons irrigated, the total acres used, the application rate in inches/acre for the year and the total precipitation received at the facility.

Note 3 - Sample storm water runoff from discharges occurring after more than 0.1 inch of rainfall.

C. SPECIAL CONDITIONS

1. This permit may be reopened and modified, or alternatively revoked and reissued, to:
 - (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
 - (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
 - (2) controls any pollutant not limited in the permit.
 - (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
 - (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.
2. All outfalls must be clearly marked in the field.

C. SPECIAL CONDITIONS (continued)

3. Changes in Discharges of Toxic Substances

The permittee shall notify the Director as soon as it knows or has reason to believe:

- (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
 - (1) One hundred micrograms per liter (100 µg/L);
 - (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
 - (3) Five (5) times the maximum concentration value reported for the pollutant in the permit application;
 - (4) The level established in Part A of the permit by the Director.
- (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant, which was not reported in the permit application.

4. Report as no-discharge when a discharge does not occur during the report period.

5. General Criteria. The following water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:

- (a) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
- (b) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
- (c) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
- (d) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
- (e) There shall be no significant human health hazard from incidental contact with the water;
- (f) There shall be no acute toxicity to livestock or wildlife watering;
- (g) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
- (h) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.

6. Sludge and Biosolids Use For Domestic Wastewater Treatment Facilities

- (a) Permittee shall comply with the pollutant limitations, monitoring, reporting, and other requirements in accordance with the attached permit Standard Conditions.
- (b) If sludge is not removed by a contract hauler, permittee is authorized to land apply biosolids that are removed from the domestic wastewater treatment lagoon during lagoon clean-out and maintenance activities. Permit Standard Conditions, Part III shall apply to the land application of biosolids. Permittee shall notify the department at least 180 days prior to the planned removal of biosolids from the lagoon. The department may require submittal of a biosolids management plan for department review and approval as determined appropriate on a case-by-case basis.

C. SPECIAL CONDITIONS (continued)

7. Domestic Wastewater Irrigation System

- (a) Land Application of wastewater shall not exceed 60 inches per acre per year, 1.0 inch per acre per day, or 3.0 inches per acre per week.
- (b) The wastewater shall be land applied at agricultural rates so that there is no discharge to drainage ways, streams, lakes, subsurface waters, or other waters of the state.
- (c) The land application rates shall be adjusted for soil moisture and slope conditions so that there is no runoff of applied wastewater from application sites.
- (d) The land application system shall be checked hourly or equipped with automatic shutdown controls and the flashing warning light system with less frequent checks during operation such that any malfunction in the operation of the equipment is detected and corrected before any wastewater runoff occurs from the land application site.

8. Water Treatment Plant Sludge

- (a) Lime sludge that is land applied shall be tested at least once per year for Effective Neutralizing Material (ENM) per MU guide G9102, Liming Missouri Soils, and G9107, Missouri Limestone Quality: "What is ENM?", Published by the University of Missouri Extension Service or an equivalent method.
- (b) Soil tests shall be conducted at least once per year before sludge application, during each year when water treatment plant sludge is to be land applied.
- (c) Land application of sludge shall not exceed the rate needed to provide the amount of ENM recommended by a current soil test. Lime sludge shall not be land applied if the soil pH exceeds pH 7.5 (salt based test).
- (d) If any aluminum additives are used in the water treatment process, the lime sludge shall be tested once per year for total aluminum on a dry weight basis. Land application of sludge shall not exceed an annual aluminum loading of 400 pounds of aluminum per acre or a cumulative loading of 4000 pounds of aluminum per acre.
- (e) An annual report shall be submitted by January 28th of each year that contains a summary of the previous year land application activities. The report must indicate the amount of sludge land applied, the number of acres used, the application rate in dry tons per acre, the soil pH, and the pounds of ENM per ton of sludge.